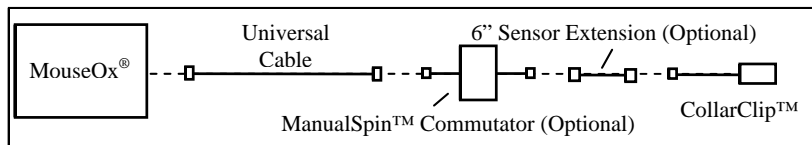


Mouse/Rat Pup CollarClip™ Instruction Sheet – Sizes XS and S

The Mouse/Rat Pup CollarClip™ can be used on AWAKE or ANESTHETIZED animals



Mouse/Rat Pup CollarClip™ Sizing

Mouse Weight Range (gm)		Clip Size	Rat Pup Weight Range (gm)
Unshaven	Shaven		
1 – 15	1 - 20	XS	N/A
>15	>20	S	5 - 30

Note that the Clip Size is engraved on the back of the clip handles.

CollarClip™/ThroatClip™ Differentiation

The CollarClip™ is colored blue, while the ThroatClip™ is colored black. **It is important that you use the correct clip for the correct application.**

Collar Training

Each Clip Pack comes with a Blank Clip that matches the size of the sensor clip. It can be used for training an animal to accept the CollarClip™ by placing the clip on the animal for a period of time prior to your experiments. A minimum of 1 hour is recommended, but longer (3-6 hrs.) is preferred.

Attaching the Collar and Making Measurements (Awake Animal)

- 1] Connect the MouseOx®, Universal Cable, Optional ManualSpin™ Commutator and Optional 6" Sensor Extension as shown in the figure above.
- 2] If you are using an animal with non-white fur, you MUST either shave the entire sensor site WELL, or use a depilatory product such as Nair® (See Chemical Hair Removal below).
- 3] Place the animal on the lab bench surface, holding it by the tail. With the other hand, place the clip on the animal from the back of its neck as shown below. Keep in mind the following:
 - Place the clip **BEHIND** the ears and in **FRONT** of the paws. **DO NOT capture the ears under the clip!**
 - Center the clip handle on the vertebral column of the animal.
 - Make sure that the clip is pushed down onto the back of the neck.
 - For smaller animals, locate the clip further back away from the head to capture more tissue between the clip times.
 - For neonates, place the clip on the skull across the ears.



- If the animal grabs the clip assembly out of your hand, **DO NOT** try to pull it back out. Set the animal down on the lab bench and it will release the clip.

- 4] Other approaches for attaching the clip if the animal is resistant:



a] While trying to attach the clip, push down on the animal's neck with the clip. It helps to lift the animal so that its hind paws do not touch the ground. It is further helpful to allow the animal's front paws to grab a wire or box lid edge with **its rear paws not touching anything.**

b] Grab the tail using your ring finger, squeeze across its hind quarters with thumb and forefinger, then push down. This immobilizes the animal quite well.

c] You can also anesthetize the animal to place the clip.

- 5] Pick the animal up by the tail while lifting the clip cable to keep it away from the animal. Gently set the animal down inside its cage. **DO NOT** carry the weight of the animal by the clip wire as this can dislodge the clip.
- 6] Once the animal is in the cage, connect the assembled wire to the CollarClip™ through an access port on the cage lid. **Make sure that you pull enough cable out of the cage so that it does not hang in the animal's face, as the animal may try to chew on the loose cable.**
- 7] Check that the wiring assembly is connected to the MouseOx®, then start the software. You **MUST USE** Revision 6.3 or higher with the CollarClip™. Follow the menu of buttons, choosing those appropriate to your measurement conditions.
- 8] If you are making unanesthetized measurements and are using the Optional ManualSpin™ Commutator, you can release rotation in the cable manually at any time while the system is running.
- 9] If signals do not come in quickly, or performance degrades over time, try the following:
 - Re-position the sensor
 - Replace the sensor
 - Shave the animal

Attaching the Collar and Making Measurements (Anesthetized Animal)

Anesthetize the animal, then follow steps 3, 7 and 9 above.

When to Replace Sensor Clips

The clips are designed to be disposable. You should replace them in the following situations:

- 1] significant buildup of hair or material covering the clip faces,
- 2] good signals (data values on the software screen are in color) take an inordinately long time to appear,
- 3] presence of any mechanical defect in the sensor.

Chemical Hair Removal

The Blank Clips that come with each Clip Pack can also be used to chemically remove hair from the CollarClip™ sensor site on the animal. We strongly urge using this method over shaving, and we also suggest that you do this a few hours to a day before you will be conducting tests on your animals.

NOTE: You MUST remove hair from the sensor site of non-white animals.

- 1] It is recommended that you anesthetize the animal for hair removal.
- 2] Lay a bead of depilatory cream (e.g., Nair®) around the entire inside of the Blank Clip as shown.



- 3] Place the clip on the animal [as described in Step 3 above], and let the clip and depilatory cream remain in place for the duration specified by the manufacturer.
- 4] Remove the clip, then carefully wash the cream completely off of the animal using swabs and a small water dish. The hair will be removed with the cream.